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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/552,521 | 10/07/2005 | Vincent Grainer | RN03042 | 2573 |

Rhodia Inc.
Legal Department
8 CEDAR BROOK DRIVE
CN 7500
CRANBURY, NJ 08512

7590

05/02/2007

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| EXAMINER |
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NILAND, PATRICK DENNIS

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| ART UNIT | PAPER NUMBER |
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1714

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| MAIL DATE | DELIVERY MODE |
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05/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,521

Applicant(s)

GRAINER ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/29/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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1. Claims 15-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed substituents, does not reasonably provide enablement for all of the encompassed substituents by the claimed recitation of “substituted” in claim 15.. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. The instant claims recite “substituted” without specifying what the substituents are. There are an infinite number of potential substituents many of which are not expected to function according to the instantly claimed invention. It would require undue experimentation to determine how to employ each of these substituents and to determine whether or not they will function in the instantly claimed invention.

“Substituted” encompasses all known and yet to be discovered substituents. This is an infinite sized list. There is no general guidance as to how to choose substituents which will function in the instant invention from this list nor how to attach the various moieties encompassed by “substituted”. The instant specification gives no guidance as to how to choose the substituents encompassed by the instant claims which will function and those which will not function in the instant claims. It requires an infinite amount of experimentation to determine how to attach most of the moieties encompassed by the instant claims and another infinite amount of experimentation to determine which attached moieties will function in the instant invention. This is undue in that it is impossible to perform. The fact that the chemical arts are unpredictable would require significant guidance from the specification for the ordinary skilled artisan to be able to make substitutions which would function as required of the instant invention,

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i.e. one cannot predict with any degree of accuracy which substituents will and will not function according to the instant specification without testing them, e.g. testing an infinite sized list of substituents. The instant specification thus does not meet the test for enablement of the full scope of the instantly claimed "substituted" moieties as required by *In re Wands* at MPEP 2164.01 [R-5] Test of Enablement.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-28 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication No. 2001/0021746 A1 Nabavi et al..

Nabavi discloses the instantly claimed invention at the abstract, which encompasses all free NCO groups, sections [0051]-[0059] which encompasses the instantly claimed surfactant, sections [0108]-[0124] of which [0110] encompasses the instantly claimed viscosities and the identities of the specific isocyanates have the instantly claimed NCO contents, e.g. the exemplified isocyanates have the instantly claimed NCO contents. The reference disclosure at section [0110] regarding lowering viscosity and reducing solvent content by using trimers or dimmers discussed therein and the viscosity requirements of this section coupled with the

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ordinary skilled artisan's understanding of how viscosity is affected by molecular weight by definition of "viscosity average molecular weight" is such that the ordinary skilled artisan would have envisioned the instant claims 16-17 and 20-22 from the reference's disclosure at section [0110]. These compositions are used to make aqueous dispersions or emulsions for use as paint or varnish (sections [0010], [0011]) which falls within the scope of the instant claims 23-28. It is not seen that the compositions of the reference contain any excess acid nor base and are therefore expected to have pHs in the broad range of the instant claim 26, particularly if they are used as coatings, which cannot degrade the substrates they are applied to. The polyols of section [0011] fall within the scope of the instant claim 24. Coatings adhere to substrates which meets the requirement of claim 27.

5. Claims 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. 2001/0021746 A1 Nabavi et al..

Nabavi discloses the instantly claimed invention at the abstract, which encompasses all free NCO groups, sections [0051]-[0059] which encompasses the instantly claimed surfactant, sections [0108]-[0124] of which [0110] encompasses the instantly claimed viscosities and the identities of the specific isocyanates have the instantly claimed NCO contents, e.g. the exemplified isocyanates have the instantly claimed NCO contents. The reference disclosure at section [0110] regarding lowering viscosity and reducing solvent content by using trimers or dimers discussed therein and the viscosity requirements of this section coupled with the ordinary skilled artisan's understanding of how viscosity is affected by molecular weight by definition of "viscosity average molecular weight" is such that the ordinary skilled artisan would have envisioned the instant claims 16-17 and 20-22 from the reference's disclosure at section

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[0110]. These compositions are used to make aqueous dispersions or emulsions for use as paint or varnish (sections [0010], [0011]) which falls within the scope of the instant claims 23-28. It is not seen that the compositions of the reference contain any excess acid nor base and are therefore expected to have pHs in the broad range of the instant claim 26, particularly if they are used as coatings, which cannot degrade the substrates they are applied to. The polyols of section [0011] fall within the scope of the instant claim 24. Coatings adhere to substrates which meets the requirement of claim 27.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed combinations of ingredients from the disclosure of Nabavi because they are encompassed by Nabavi and would have been expected to give the coating properties disclosed by Nabavi.

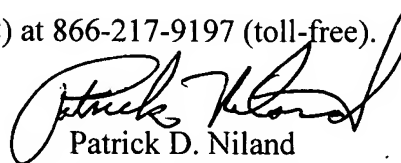
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Patrick D. Niland", is positioned above the printed name.

Patrick D. Niland
Primary Examiner
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